

CLAIMS

What is claimed is:

- 1 1. A method comprising:
 - 2 attempting to download computer code from a management module to a first data
 - 3 processing unit, the first data processing unit being one of a plurality of data processing units
 - 4 managed by the management module, the plurality of data processing units being coupled to the
 - 5 management module by a management pathway;
 - 6 in response to the computer code failing to properly download and thus resulting in the
 - 7 first data processing unit being unable to define its management pathway location on the
 - 8 management pathway, transmitting a failure signal from the first data processing unit to the
 - 9 management module using a special address on the management pathway;
 - 10 comparing management pathway locations of currently active data processing units with
 - 11 a list of all management pathway locations reserved for all of the plurality of data processing
 - 12 units, the currently active data processing units being from the plurality of data processing units;
 - 13 and
 - 14 deducing the first data processing unit's management pathway location as being a
 - 15 management pathway location that is on the list of all management pathway locations but is not a
 - 16 management pathway location of one of the currently active data processing units.
- 1 2. The method of claim 1, further comprising providing a management pathway location to
- 2 the first data processing unit after deducing the first data processing unit's management pathway
- 3 location.
- 1 3. The method of claim 2, wherein the management pathway location of the first data
- 2 processing unit is provided to the first data processing unit using a control logic that is compliant
- 3 with the I²C bus specification and is coupled to the management pathway.

1 4. The method of claim 3, wherein the control logic is under the control of the management
2 module.

1 5. The method of claim 1, further comprising:
2 identifying a second data processing unit that does not know its management pathway
3 location as a result of a failed computer code download;
4 blocking communication from the management module to the second data processing
5 unit; and
6 providing a first management pathway location to the first data processing unit.

1 6. The method of claim 5, further comprising:
2 subsequently unblocking communication between the second data processing unit and the
3 management module; and
4 providing a second management pathway location to the second data processing unit.

1 7. The method of claim 1, wherein the plurality of data processing units are server blades.

1 8. The method of claim 7, wherein the management module and the server blades are
2 components of a server blade chassis.

1 9. The method of claim 1, wherein each of the data processing units has a network interface
2 card (NIC), and wherein the first data processing unit's management pathway location is an
3 Internet Protocol (IP) address.

1 10. The method of claim 1, wherein the computer code is being downloaded into a service
2 processor in the first data processing unit.

1 11. The method of claim 1, wherein the computer code is attempted to be flashed into a flash
2 memory in the service processor in the first data processing unit.

1 12. A system comprising:
2 a management module;
3 a plurality of data processing systems;
4 a management pathway coupling the management module to the plurality of data
5 processing systems;
6 a list of reserved management pathway locations that are reserved for the plurality of data
7 processing systems on the management pathway; and
8 a presence detect device coupled to the management pathway, wherein if a download of
9 computer code to a first data processing system in the plurality of data processing systems fails
10 and causes a management pathway location for the first data processing system to become
11 undefined by the first data processing system, then the presence detect device detects a failure
12 signal from the first data processing system on a special address on the management pathway,
13 thus resulting in the management module comparing the list of reserved management pathway
14 locations with locations of data processing units that are currently active on the management
15 pathway to restore a management pathway location to the first data processing unit.

1 13. The system of claim 12, further comprising a control logic, which is compliant with an
2 I²C bus specification, for restoring the management pathway location to the first data processing
3 system.

1 14. The system of claim 13, further comprising:
2 a blocker for blocking communication from the management module to a second data
3 processing system that has failed to download software, wherein the first data processing unit
4 can have its management pathway location restored while the second data processing system is
5 blocked, and the second data processing system can subsequently have its management pathway
6 location restored after unblocking the blocker.

1 15. The system of claim 12, further comprising:
2 a service processor in the first data processing unit; and
3 a flash memory in the service processor in the first data processing unit, wherein the
4 computer code is a code update being flashed from the management module to the flash memory.

1 16. The system of claim 12, wherein the plurality of data processing units are server blades in
2 a server chassis.

1 17. A computer program product, residing on a computer usable medium, comprising:
2 program code for attempting to download computer code from a management module to
3 a first data processing unit, the first data processing unit being one of a plurality of data
4 processing units managed by the management module, the plurality of data processing units
5 being coupled to the management module by a management pathway;
6 program code for in response to the computer code failing to properly download and thus
7 resulting in the first data processing unit being unable to define its management pathway location
8 on the management pathway, transmitting a failure signal from the first data processing unit to
9 the management module using a special address on the management pathway;
10 program code for comparing management pathway locations of currently active data
11 processing units with a list of all management pathway locations reserved for all of the plurality
12 of data processing units, the currently active data processing units being from the plurality of
13 data processing units; and
14 program code for deducing the first data processing unit's management pathway location
15 as being a management pathway location that is on the list of all management pathway locations
16 but is not a management pathway location of one of the currently active data processing units.

1 18. The computer program product of claim 17, further comprising program code for
2 providing a management pathway location to the first data processing unit after deducing the first
3 data processing unit's management pathway location.

1 19. The computer program product of claim 17, further comprising:
2 program code for identifying a second data processing unit that does not know its
3 management pathway location as a result of a failed computer code download;
4 program code for blocking communication from the management module to the second
5 data processing unit; and
6 program code for providing a first management pathway location to the first data
7 processing unit.

1 20. The computer program product of claim 19, further comprising:
2 program code for subsequently unblocking communication between the second data
3 processing unit and the management module; and
4 program code for providing a second management pathway location to the second data
5 processing unit.